PMP3970B_DUO

Technical
Service Manual

产品规格书(Product Specification Sheet)

产品类型(Model): 平板电脑(Tablet)

型号(Machine Model): PMP3970B_DUO

品牌(Brand): Prestigio

描述(Description): 7 寸平板电脑(7 inch Tablet)

版本(Revision): 1.0

修改履历（Revision History）

日期(Date)	*版本(Revision)*	*描述(Comment)*
2013-3-6	1.0	版本创建(Release for review)

1. 基本参数(Basic Parameters)

操作系统(OS)	**Android 4.1**
CPU 型号(CPU)	**Amlogic AML8726-MXS**
CPU 核芯数(Core Model)	**双核 ARM Cortex-A9**
CPU 频率(Frequency)	**1.5GHz**
系统内存 DDR(RAM)	**1GB DDR3**
存储容量(ROM)	**4GB NAND Flash**

2. 显示屏(Display Features)

屏幕尺寸(Screen Size)	**7 inch**
屏幕分辨率(Resolution)	**1024 x600**
显示比例(Aspect ratio)	**16：9**
屏幕类型(Display Technology)	**TN TFT LCD**
垂直方向视角 (Vertical viewing angle)	**60/70(θT); 65/75(θB);**
水平方向视角(Horizontal viewing angle)	**65/75**

3. 控制屏 (Touch Panel Controls)

电容触控屏(Capacitive touch screen)	**Multiple point（5）**

4. 无线网络参数(Wireless and cellular)

WiFi 功能(WIFI)	**802.11b/g/n**

5. 传感器(Sensors)

重力传感器(Accelerometer Sensor)	**Yes**

6. 摄像头(Camera)

前置摄像头（Front Camera）	**0.3M pixels**

7. 电池 电源(Battery and Power)

电池容量（Battery Capacity）	**4100mAh 3.7V**
类型（Type）	**Li-ion Polymer Battery**
续航时间（Battery charging time）	**T.B.D**
电源适配器（Adapter）	**5V/2A**

8. 输入输出接口(Input and Output)

电源输入接口(DC Input Jack)	**Micro USB**
音频接口(Headphone Jack)	**3.5mm Headphone(OMTP)**
USB 接口(USB Jack)	**Micro USB(OTG)**
存储卡(SD Card)	**TF card(up to 32GB)**
HDMI 接口(HDMI Jack)	**Yes(TYPE C)**

9. 控制键(Buttons)

电源键（Power）	**Power**
音量键（Volume）	**Vol-、Vol+**

10. 媒体支持类型(Mail attachment support)

图片（Image）	**JPG, JPEG, BMP,GIF,PNG**
文档（Document）	**.doc, .xls, .ppt, .pdf, .txt**
网页（Web Page）	**.htm,.html**

11. 音频(Audio)

频率响应（Frequency response）	**20Hz ~ 20KHz**
支持格式 (解码) （Formats supported (Decode)）	**MP1, MP2, MP3, WMA7, WMA8, WMA9, WAV, APE, OGG, OGA, FLAC, AAC, M4A**
支持格式 (编码) （Formats supported (Eecode)）	**AMR-NB**
扬声器（Speaker）	**0.5W x1**
麦克风（Mirophone）	**Built in**

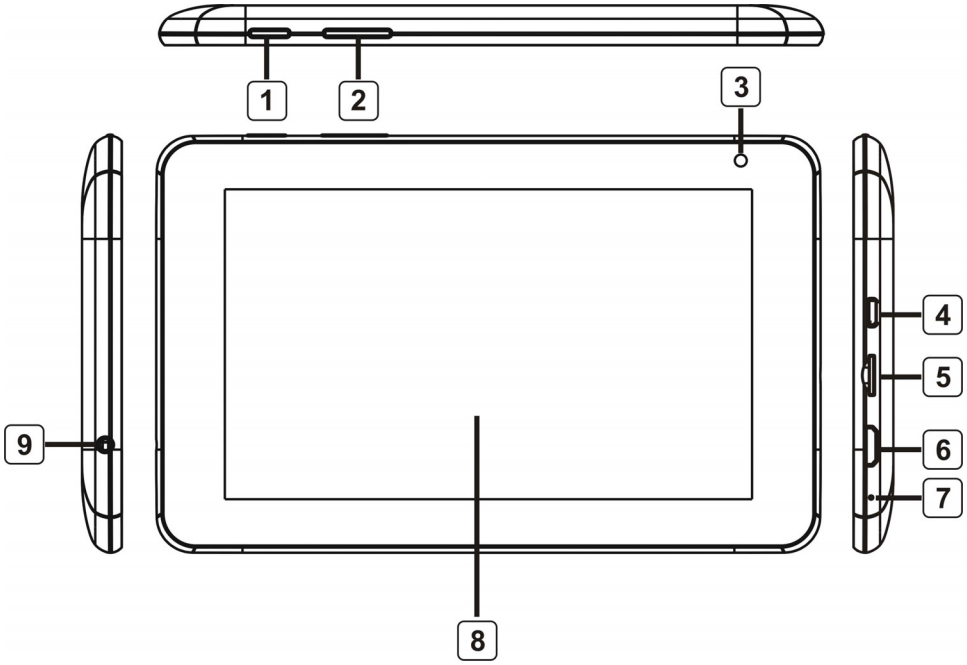
12. 视频(Video)

高清视视频解码 （HD Video Decode）	**MPEG-1, MPEG-2,MPEG-4, H.263, H.264, AVS, VC-1,RV, VP6/VP8, Sorenson Spark, MVC**
高清视频编码（HD Video Encode）	**H.264, MVC,VP8**
图像处理（Graphics Support）	**OpenGL ES1.1 and 2.0, OpenVG1.1**

13. 尺寸和重量(Size and Weight)

长度 (Height)	**194.7mm**
宽度 (Width)	**122.5mm**
厚度 (Depth)	**11.7mm**
重 (Weight)	

14. 外观(ID)



1	**Power button**	6	**Mini HDMI Port**
2	**VOL +/- Button**	7	**Microphone**
3	**Front Camera**	8	**Touch Screen**
4	**Micro USB Port**	9	**Headphone Jack**
5	**Micro SD Card Port**		

BOM list

Line number	Name	Specifications	Quantity		Position number
1	Assembly Component	SMB-D7002,Middle frame component,black	1	PCS	
2	Regular Poron	45*10*1mm,E200-10,One side 3M9080 adhesive,black	2	PCS	Pasted on the battery
3	Irregular Double-sided Adhesive	SMBD7002-H01,6050PU foam double-sided adhesive,touch panel double-sided adhesive	1	PCS	
4	Nickel Metal Screw	M1.6*3CMHNI(K=0.5)	4	PCS	
5	Speaker	MA2415G,0.5W,8R,L24*W15*H3.4 ,with SUR0.8-2P-80mm red black	1	PCS	
6	[Semifinished Product]-Key Board	8457C	1	PCS	
7	[Semifinished Product]-Adapter	8458C	1	PCS	
8	[Semifinished Product]-Motherboard	SMB-D7002 motherboard 8470C,DIP	1	PCS	
9	[Semifinished Product]-LCD Panel	INN070DP09V2	1	PCS	
10	Screen Touchpad	ACE-CG7.0A-249,capacitive,7"&16:9,with	1	PCS	Choose one from two
11	Screen TouchPad	GKG0362A,capacitive,7"&16:9,with out adhesive	1	PCS	Choose one from two
12	Built-in Camera	U-SMB-D7002-329-V2.0(UHJ),CMOS,0.3 million pixels,648*496,YUV	1	PCS	
13	Nude Battery	BT-B0B6L,5058C0(Lithium polymer-WanZhong-	1	PCS	
14	Purchased AC Adapter	HNB050200X,European standard&British standard,USB,NR,NR,black	1	PCS	
15	Coplanar Flat Wire	0.5mm,8P,70mm,-40C~+80C,no fold line	1	PCS	Connect motherboard and earphone adapter plate
16	Regular Double-sided Adhesive	3M9080,40*3mm,0.1	1	PCS	
17	Regular Conductive Foam	NA,full conductive,single sided adhesive,6*6*4mm,LG	2	PCS	Pasted between motherboard and LCD panel, close to HDMI and
18	Regular Conductive Foam	NR,full conductive,single adhesive,7.5*4*3mm,NR	1	PCS	Pasted between earphone and LCD panel
19	Assembly Component	SMB-D7002,back cover component(without SIM card/camera,2013075-V1.0),black fluff paint	1	PCS	
20	Rear Housing Plastic Part	SMBD7002-RE01,bakc cover(without SIM card/camera),spray paint(2013075-	1	PCS	
21	Key Plastic Part	SMBC7003-RE02,key,spray paint,pearl grey	1	PCS	Hot melt to the rear housing by injection molding factory
22	USB Power Cable	USB-male-right angle=Micro USB B-male[right angle,1.0m,without the toroid,black]	1	PCS	
23	USB Data Cable	USB A-female-right angle=Micro USB-male[right male,150mm,without the	1	PCS	
24	Quick Guide	Prestigio,PMP3970B_DUO,Quick Guide,V1.0	1	PCS	
25	Warranty Card	Prestigio,WARRANTY CARD,V3.0	1	PCS	

26	Legal Handbook	Prestigio_MULTIPAD,Legal And Safety Notices,V3.0	1	PCS	
27	Ordinary PE Packaging Bag	110*180mm,NA,NA	1	PCS	Bags for quick guide, warranty card and legal handbook
28	Shrink Film Packaging Bag	255*365mm,V1.0	1	PCS	Thermal shrinkage use for gift box
29	Gift Box Inner Box	Prestigio,PMP3970B_DUO,V1.0	1	PCS	Gift box packaging, customer assign supplier
30	Printed Carton	Prestigio,PMP3970B_DUO,V1.0	0.1	PCS	Outer box ten pcs packaging
31	Paperboard Sheet	455*220mm,single B watts,two-sided kraft	0.1	PCS	Pad on the top of the outer box to avoid scratching the gift box during opening.
32	Other Pallet	1200*1000*150mm,1000Kg,plastic cement	0.002	PCS	Pallet customer has assigned the supplier, ocean shipping 800 pcs per pallet. The whole size of the piled pallets is 1200*1000*1910mm; air freight 500 pcs per pallet and the whole size of the piled pallets is
33	Paper Corner Protector	920*60*60*5mm	0.008	PCS	Every pallet matches four pcs which fix on the top of the pallet to avoid damages to the box during
34	Ordinary PE Packaging Bag	140*260mm,NA,NA	1	PCS	Host packaging bag
35	Blank Sticker	T01,30*8mm,coated paper self-adhesive sticker	3	PCS	Place in the package as accessory
36	Blank Sticker	BS033A,70*100mm,coated paper self-adhesive sticker	0.2	PCS	Pasted on the outer box（10 pcs）,two pcs for every outer box
37	Blank Sticker	BS013C,45*30mm,matted silver PET	1	PCS	Pasted on the reserved place of the gift box
38	Blank Sticker	BS046A,68*110mm,coated paper self-adhesive sticker	0.008	PCS	Four pcs for every pallet(500 pcs packaging)
39	Coated Paper Self-adhesive Sticker	Li battery goods labell,120*110mm,coated paper self-adhesive sticker	0.108	PCS	One for outer box(10 pcs packaging), four pcs for every pallet(500 pcs packaging)
40	Ordinary Self-Adhesive Paper	SMB-C7016,T04,Eastern Europe Prestigio,PMP5570C,water loss sticker 7*10mm,NR,V1.0	1	PCS	Pasted on the proper place of the circuit board
41	Warranty Seal	Eastern Europe Prestigio,PMP5570C,V1.0	1	PCS	Pasted on the proper palce of the circuit board screw
42	Irregular Shaped PET Prtective Film	SMBC7003-H03,screen protective film 0.05PET(multicolor printed,Eastern Europe Prestigio	1	PCS	Pasted on the device

Common troubleshooting

Q.: When the device will not start up what are the basic detection steps?

Answer:

1. If the device can start up via adaptor powering, it means the battery power is low.
2. Ensure the indicator of the power adaptor lights and the adaptor works normally.

Q. : What to do if water accidentally runs into the device?

Answer:

1. It is strictly forbidden to boot the device which may result in more serious damage to the tablet computer.
2. Wipe dry the device surface, and then take it to a professional service center for repairing immediately.

Q.: How to restore the default settings?

Answer: Open the " Settings " > " backup and reset " > " restore the default settings " > reset the computer. Save your data before restoring default settings.

Q.: How to prolong the use time of the battery?

Answer:

1. Adjust LCD screen brightness to a proper value.
2. Adjust to appropriate volume.
3. Adjust to proper screen timeout time.

Q.: Although having a normal network connection, Internet is still slow, what to do?

Answer: It is recommended to clear your browser cache, for specific operations please refer to the " browser " part.

Q.: The device hangs, what to do?

Answer: Hold the power button to shut down the device.

Common corrective maintenance

Bug 1) Starting up fails, screen doesn’t show the self-testing picture.

1. Press the power button and check whether the indicator light lights up red. If not, then check if the power adaptor is connected. Start up after charging it for 10 minites (caused by low battery).
2. Check whether power socket of mainboard is plugged alright.
3. Check whether the adapter is 5V2A, otherwise check if there is short circuit or leakage.
4. Check whether the mainboard has a scorching smell caused by integrated heating or line short circuit.

Bug 2) When pressing the power button the power indicator and voltage are all normal, there may be two situations:

1. Firmware or software bug: programme the firmware again.
2. Hardware bug: first check by hand whether the mainboard is heated, the connecting line is well

connected, try to find out which part is malfunctioning by replacing by turns the mainboard and the LCD and launching the device.

Bug 3) Starting up crash at the stage of starting up picture.

Malfunction can indicate problems of two aspects:

1. Firmware of software: caused by a loss of the document package or too much software installed, the suggestion is to reinstall the firmware.
2. Hardware malfunction: a) check whether the voltage is too low, the adaptor is well connected, usually caused by low battery or a failure of the battery. b) Motherboard's damaged, replace the motherboard.

Bug 4) The battery can't be charged after starting up . Possible reason:

1. Check whether the battery lines are in good condition and the battery doesn't have a leakage.
2. Check whether the power supply VCC+3.5v~4.2V of battery is functioning.

Bug 5) USB, HDM, SD cards don't function.

1. The three connections lead to motherboard directly, so first check if there are any bad contacts or broken connection.
2. Check if the external device is compatible with the original device.
3. Due to the frequent inserting and pullting out, the solder between the connector and the motherboard might not be in good condition, re-solder it or renew the connector.

Bug 6) The camera doesn't work.

1. Check if the camera is activated or there is dust in the lens.
2. Check the hardware, check whether sensor is connected well to the motherboard, replace the sensor to see if it's broken, otherwise it is the motherboard bug.

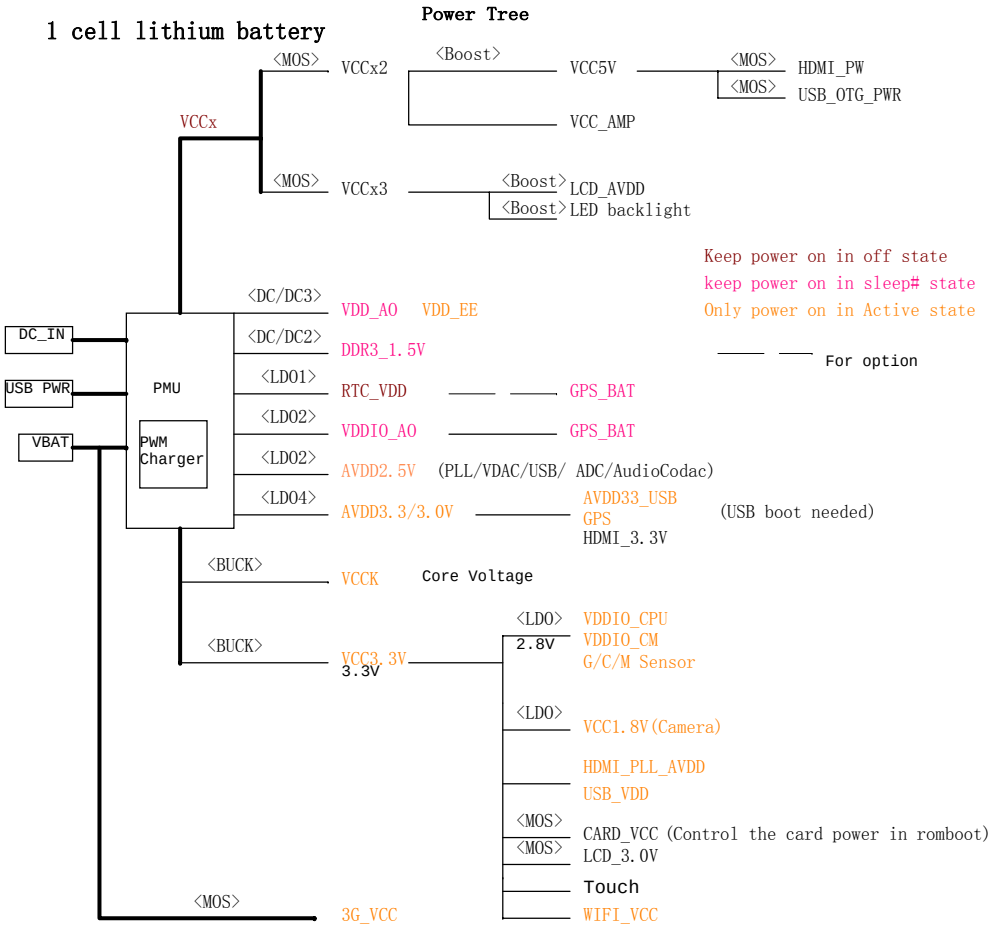
Bug 7) WIFI does not work.

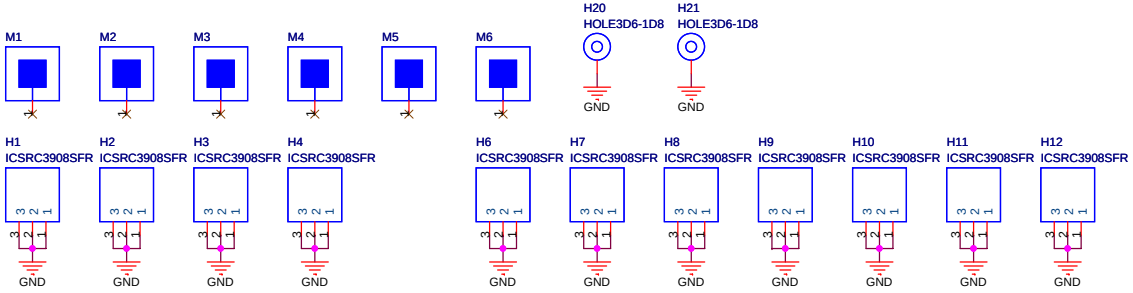
1. Check whether WIFI can be started, please refer to the instruction to get details.
2. Check the hardware, whether the WIFI board and antenna are well connected, check voltage of WIFI board, crystal oscillator.

	标题/描述	页码
01	INDEX	1
02	POWER	2
03	CPU	3
04	DDRIII	4
05	FLASH	5
06	Panel & Touch	6
07	KEY & USB & CARD	7
08	WIFI	8
09	SENSORS	9
10	HDMI	10
11	CAMERA	11
12	AUDIO	12
13	CHANGE LIST	13

Version info-20121228
1) 4pcs 8bit is for MXS only, MXL only support 16bit DDR3

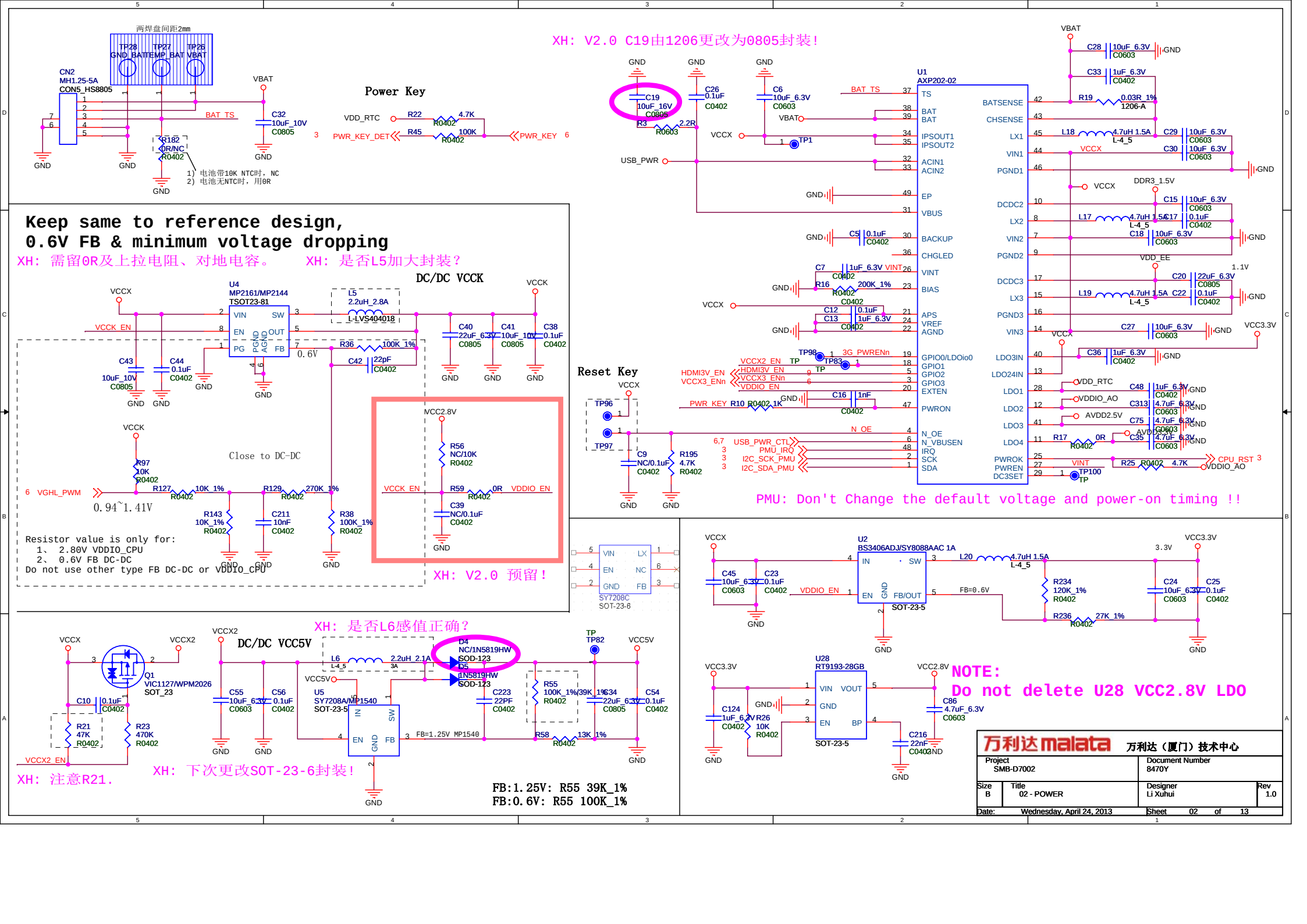
2) Touch/TTL_LCD/Camera interface signals should
serial 33ohm resistor for better EMI/ESD performace.
These resistors are removed for costdown

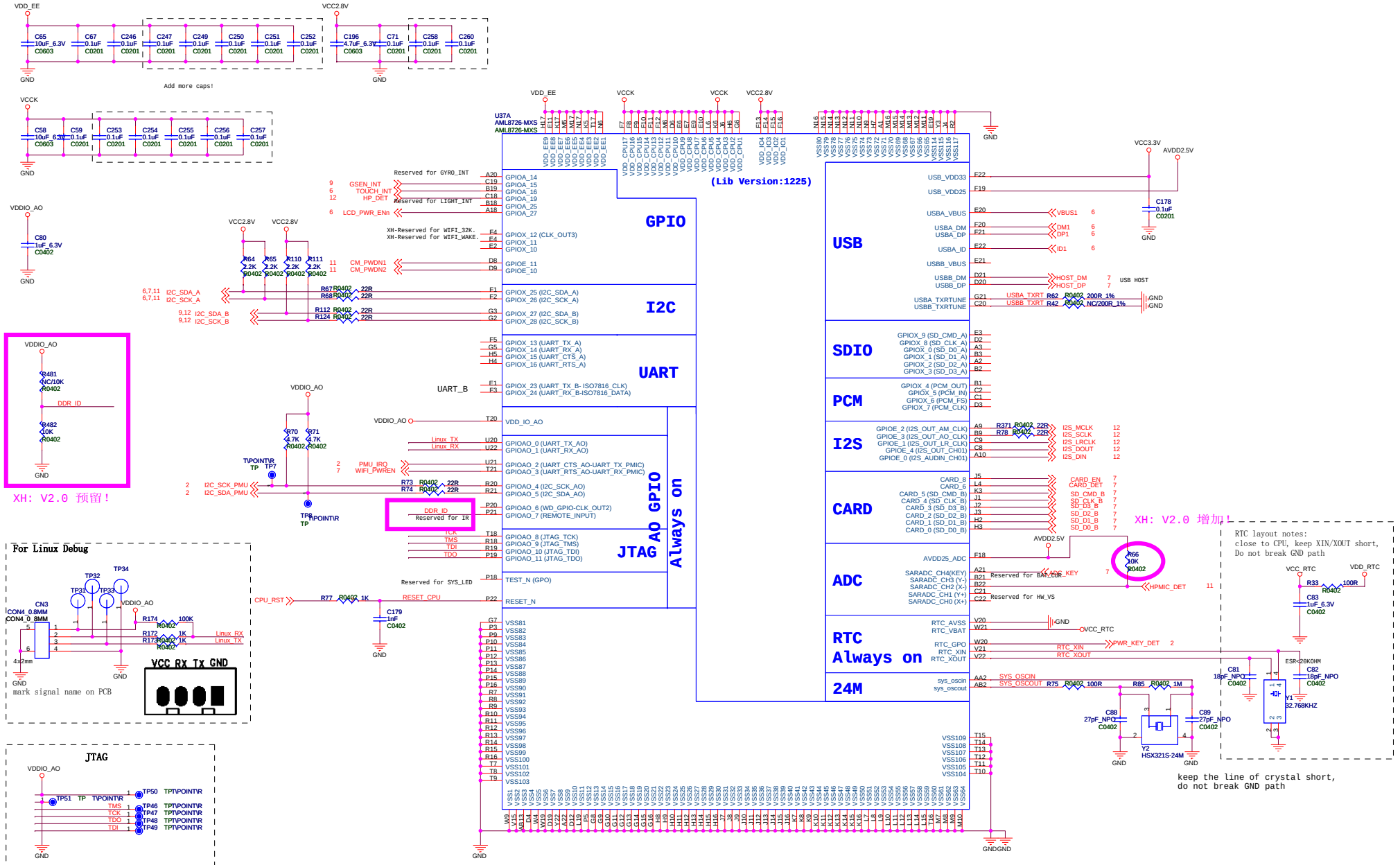




万利达 malata 万利达（厦门）技术中心

Project SMB-D7002		Document Number 8470Y	
Size A3	Title 01 - INDEX	Designer Li Xuhui	Rev 1.0
Date: Tuesday, March 12, 2013	Sheet 1 of 13		

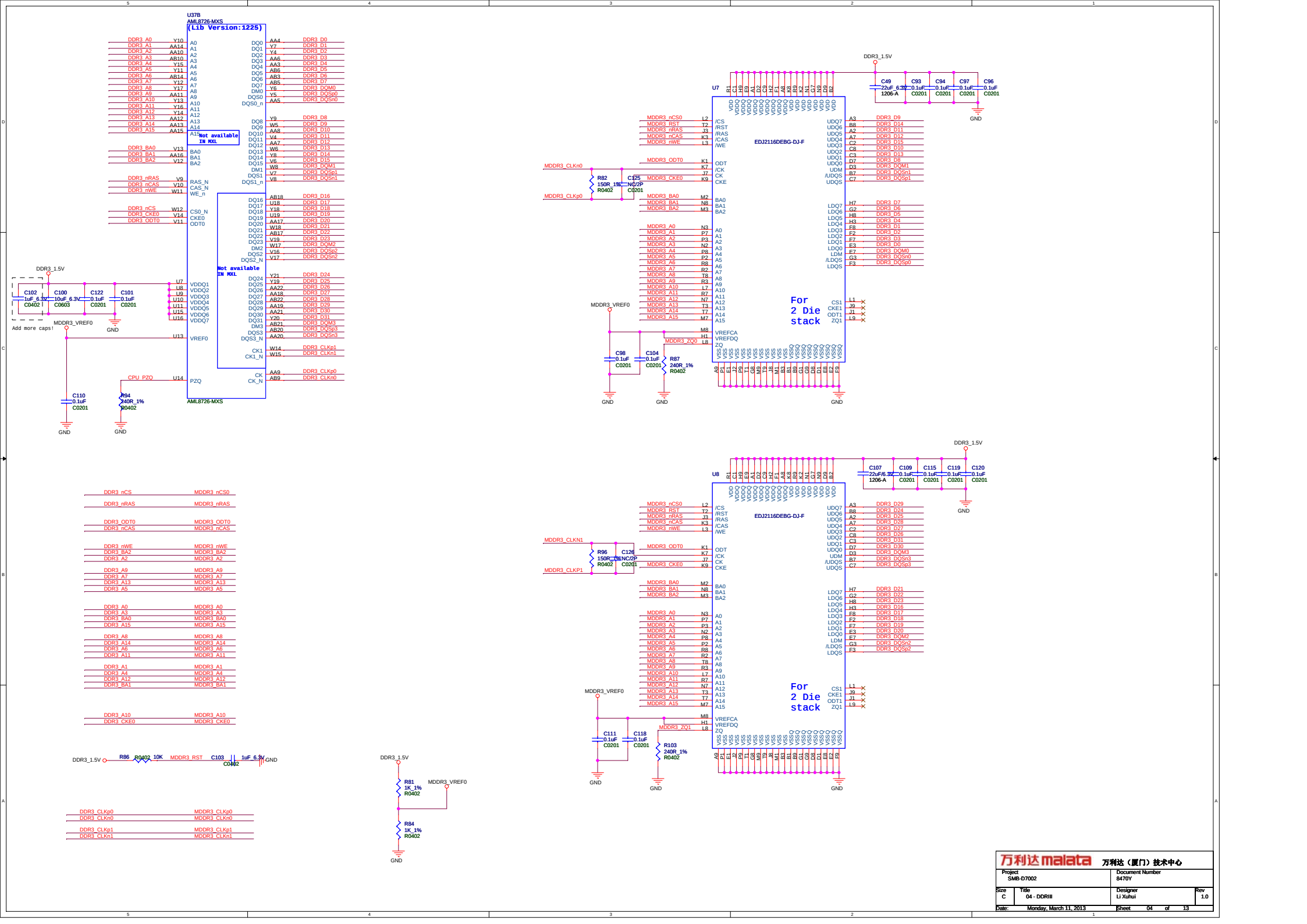

两焊盘间距2mm
TP28 TP27 TP26
GND BATTEMP BAT VBAT
CN2
MH1.25-5A
CON5_HS8805
BAT_TS
VBAT
C32
10uF_10V
C0805
R182
0R/NC
R0402
1) 电池带10K NTC时，NC
2) 电池无NTC时，用0R
Power Key
VDD_RTC
R22
4.7K
R0402
PWR_KEY_DET
R45
100K
PWR_KEY
XH: V2.0 C19由1206更改为0805封装！
C19
10uF_16V
C0805
R3
2.2R
R0603
C26
0.1uF
C0402
C6
10uF_6.3V
C0603
USB_PWR
VCCX
TP1
U1
AXP202-02
BAT_TS
VBAT
IPSOUT1
IPSOUT2
ACIN1
ACIN2
EP
VBUS
BACKUP
CHGLED
VINT
BIAS
APS
VREF
AGND
GPIO0/LDOio0
GPIO1
GPIO2
GPIO3
EXTEN
PWRON
N_OE
N_VBUSEN
IRQ
SCK
SDA
BATSENSE
CHSENSE
LX1
VIN1
PGND1
DCDC2
LX2
VIN2
PGND2
DCDC3
LX3
PGND3
VIN3
LDO3IN
LDO24IN
LDO1
LDO2
LDO3
LDO4
PWROK
PWREN
DC3SET
VBAT
C28 10uF_6.3V C0603
C33 1uF_6.3V C0402
R19 0.03R_1% 1206-A
L18 4.7uH 1.5A L-4_5
C29 10uF_6.3V C0603
C30 10uF_6.3V C0603
DDR3_1.5V
C15 10uF_6.3V C0603
L17 4.7uH 1.5A L-4_5
C17 0.1uF C0402
C18 10uF_6.3V C0603
VDD_EE 1.1V
C20 22uF_6.3V C0805
L19 4.7uH 1.5A L-4_5
C22 0.1uF C0402
C27 10uF_6.3V C0603
VCC3.3V
C36 1uF_6.3V C0402
VDD_RTC
VDDIO_AO
AVDD2.5V
C48 1uF_6.3V C0402
C313 4.7uF_6.3V C0603
C75 4.7uF_6.3V C0603
C35 4.7uF_6.3V C0603
R17 0R R0402
R25 R0402 4.7K
CPU_RST
VDDIO_AO
C7 1uF_6.3V VINT C0402
R16 200K_1% R0402
C12 0.1uF C0402
C13 1uF_6.3V C0402
C5 0.1uF C0402
TP98 TP83 3G_PWRENn
VCCX2_EN HDMI3V_EN VCCX3_ENn VDDIO_EN
C16 1nF C0402
PWR_KEY R10 R0402 1K
N_OE
USB_PWR_CTL
PMU_IRQ
I2C_SCK_PMU
I2C_SDA_PMU
Reset Key
TP96
TP97
C9 NC/0.1uF C0402
R195 4.7K R0402
PMU: Don't Change the default voltage and power-on timing !!
Keep same to reference design,
0.6V FB & minimum voltage dropping
XH: 需留0R及上拉电阻、对地电容。
XH: 是否L5加大封装？
DC/DC VCCK
U4
MP2161/MP2144
TSOT23-81
VIN SW EN OUT PG PGND AGND FB
L5
2.2uH_2.8A
L-LVS404018
VCCK_EN
R36 100K 1%
C42 22pF C0402
0.6V
C40 22uF_6.3V C0805
C41 10uF_10V C0805
C38 0.1uF C0402
C43 10uF_10V C0805
C44 0.1uF C0402
Close to DC-DC
R97 10K R0402
6 VGHL_PWM
R127 10K_1% R0402
R129 270K_1% R0402
0.94~1.41V
R143 10K_1% R0402
C211 10nF C0402
R38 100K_1% R0402
VCC2.8V
R56 NC/10K R0402
VCCK_EN
R59 0R R0402
VDDIO_EN
C39 NC/0.1uF C0402
Resistor value is only for:
1、 2.80V VDDIO_CPU
2、 0.6V FB DC-DC
Do not use other type FB DC-DC or VDDIO_CPU
XH: V2.0 预留！
SY7208C
SOT-23-6
XH: 是否L6感值正确？
DC/DC VCC5V
Q1
VIC1127/WPM2026
SOT_23
VCCX2_EN
R21 47K R0402
R23 470K R0402
C10 0.1uF C0402
C55 10uF_6.3V C0603
C56 0.1uF C0402
L6
L-4_5
2.2uH_2.1A
3A
D4
NC/1N5819HW
SOD-123
D5
1N5819HW
SOD-123
C223 22PF C0402
U5
SY7208A/MP1540
SOT-23-5
IN SW EN GND FB
FB=1.25V MP1540
R55 100K_1%/39K_1%
R58 13K_1%
TP
TP82
VCC5V
C34 22uF_6.3V C0805
C54 0.1uF C0402
XH: 注意R21.
XH: 下次更改SOT-23-6封装！
FB:1.25V: R55 39K_1%
FB:0.6V: R55 100K_1%
U2
BS3406ADJ/SY8088AAC 1A
IN SW EN GND FB/OUT
SOT-23-5
C45 10uF_6.3V C0603
C23 0.1uF C0402
VDDIO_EN
L20 4.7uH 1.5A L-4_5
FB=0.6V
R234 120K_1% R0402
R236 27K_1% R0402
C24 10uF_6.3V C0603
C25 0.1uF C0402
3.3V
U28
RT9193-28GB
VIN VOUT GND EN BP
SOT-23-5
C124 1uF_6.3V C0402
R26 10K R0402
C86 4.7uF_6.3V C0603
C216 22nF C0402
NOTE:
Do not delete U28 VCC2.8V LDO
万利达 malata
万利达（厦门）技术中心
Project
SMB-D7002
Document Number
8470Y
Size
B
Title
02 - POWER
Designer
Li Xuhui
Rev
1.0
Date:
Wednesday, April 24, 2013
Sheet
02
of
13



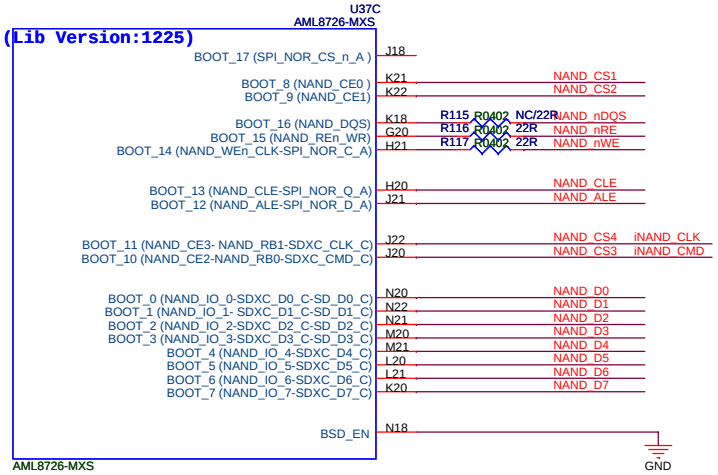
JTAG and consol place to the
easy welding place where can be
weld when open the shell.

BGA SMT&Soldering NOTE:
1)Scattered chips or vacuum-broken packed chips need
to bake more than 12 hours at 100 degrees,before on-SMT line
And must completed soldering within 48 hours if open vacuum-packed or finish baking
Otherwise, burst vapor will damage the chip during the welding process
2)Require both sides of heating equipment, in order to avoid PCB damage or PCB distortion
3) Should have skilled operators for manual soldering
It is recommended to welding in professional BGA soldering factory.
If cpu had bad welding or welding damage, It will be very difficult to debug PCBA

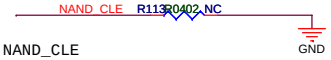
万利达 malata	万利达（厦门）技术中心		
Project: SMB-D7002		Document Number: 8470Y	
Size: C	Title: 03 - CPU	Designer: Li Xuhui	Rev: 1.0
Date: Tuesday, March 12, 2013		Sheet 03 of 13	



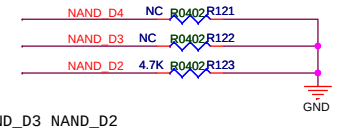
万利达 malata	万利达（厦门）技术中心		
Project: SMB-D7002		Document Number: 8470Y	
Size: C	Title: 04 - DDRIII	Designer: Li Xuhui	Rev: 1.0
Date: Monday, March 11, 2013		Sheet 04 of 13	



place to easy welding place where can be weld when open the shell.

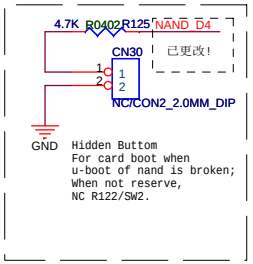


NAND_CLE
1 NAND Async mode
0 NAND Toggle mode

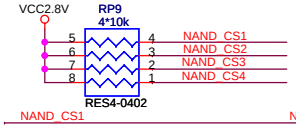


NAND_D4	NAND_D3	NAND_D2	
1	1	1	Boot from nand without RB
1	1	0	Nand with RB
1	0	X	SPI nor flash romboot
0	1	1	Boot from iNAND uses SDIOC& tSD NAND BOOT
0	1	0	Boot from iNAND uses SDIOB
0	0	1	Boot from iNAND uses SDIOA

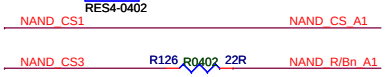
Power ON Config



Hidden Buttom
For card boot when u-boot of nand is broken;
When not reserve, NC R122/SW2.



NAND_CS3&NAND_CS4 also for NAND_R/B#



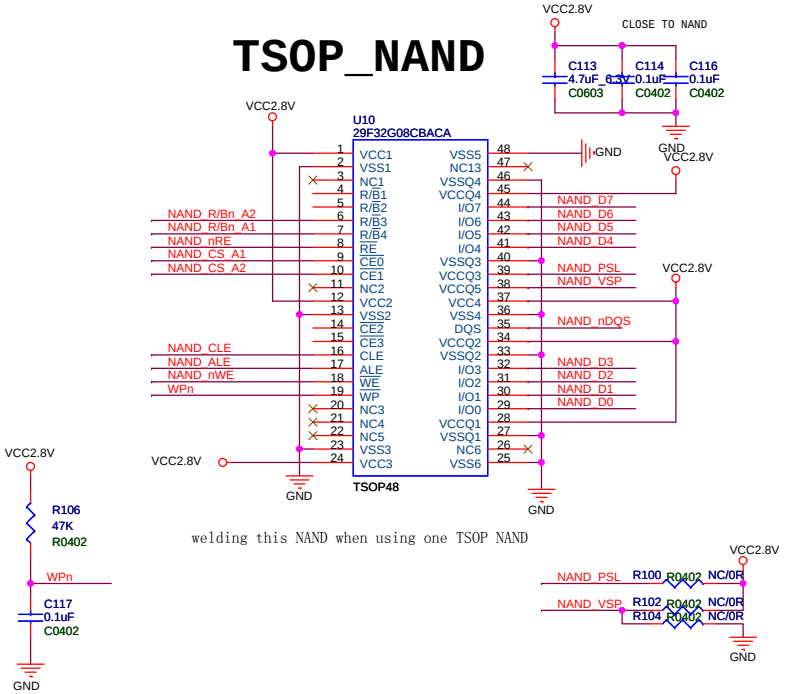
NC when 2 pcs 2CE

welding when 1 pcs 2CE, 2pcs 2CE

welding when 1 pcs 2CE

Nand config, default 1CE only
When using 2x2CE, R/B# pins are not used,
need to change Power on config

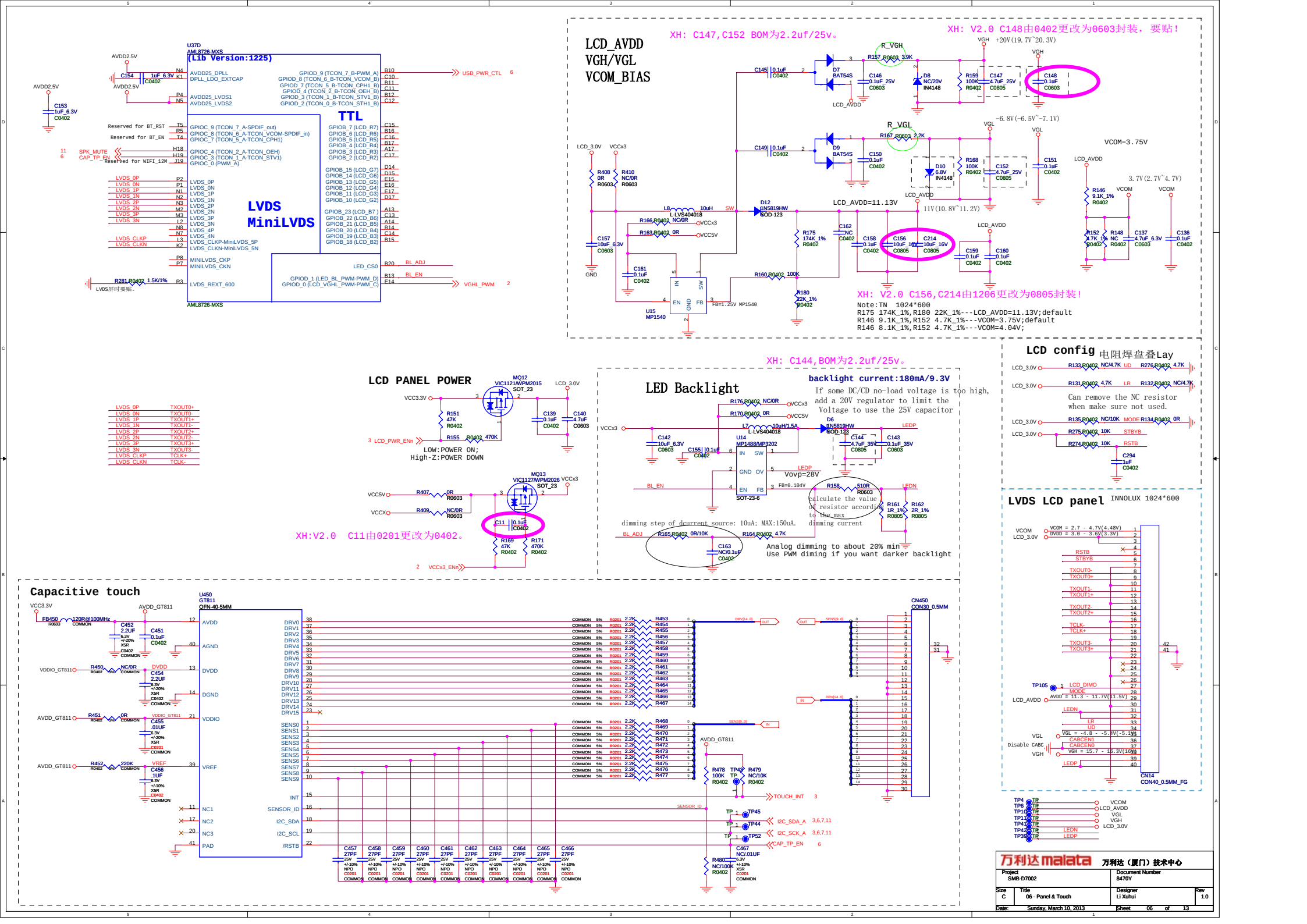
TSOP_NAND



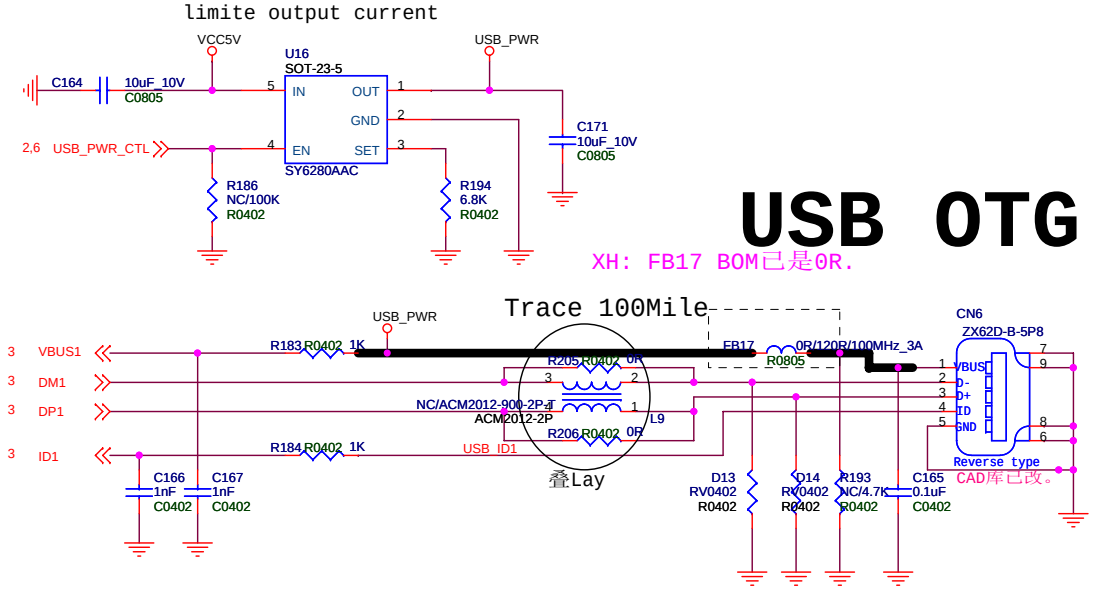
welding this NAND when using one TSOP NAND

万利达 malata 万利达（厦门）技术中心

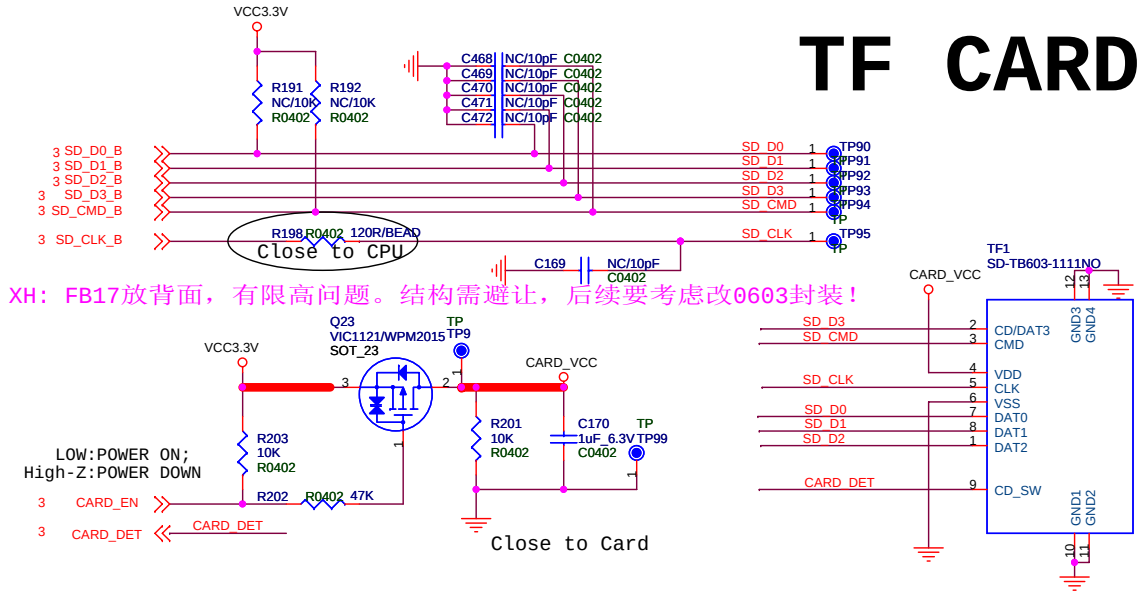
Project	Document Number	
SMB-D7002	8470Y	
Size: A3	Title: 05 - FLASH	Designer: Li Xuhui / Rev: 1.0
Date: Sunday, March 10, 2013	Sheet 05 of 13	


U37D
AML8726-MXS
(Lib Version:1225)
LVDS
MiniLVDS
TTL
AML8726-MXS
LCD_AVDD
VGH/VGL
VCOM_BIAS
XH: C147,C152 BOM为2.2uf/25v。
XH: V2.0 C148由0402更改为0603封装，要贴！
R_VGH
R_VGL
VCOM=3.75V
LCD_AVDD=11.13V
XH: V2.0 C156,C214由1206更改为0805封装！
Note:TN 1024*600
R175 174K_1%,R180 22K_1%---LCD_AVDD=11.13V;default
R146 9.1K_1%,R152 4.7K_1%---VCOM=3.75V;default
R146 8.1K_1%,R152 4.7K_1%---VCOM=4.04V;
LCD PANEL POWER
LOW:POWER ON;
High-Z:POWER DOWN
XH:V2.0 C11由0201更改为0402。
XH: C144,BOM为2.2uf/25v。
LED Backlight
backlight current:180mA/9.3V
If some DC/CD no-load voltage is too high, add a 20V regulator to limit the Voltage to use the 25V capacitor
Vovp=28V
calculate the value of resistor according to the max dimming current
dimming step of dcurrent source: 10uA; MAX:150uA.
Analog dimming to about 20% min
Use PWM diming if you want darker backlight
LCD config 电阻焊盘叠Lay
Can remove the NC resistor when make sure not used.
LVDS LCD panel INNOLUX 1024*600
Capacitive touch
U450
GT811
QFN-40-5MM
CN450
CON30 0.5MM
CN14
CON40_0.5MM_FG
万利达 malata
万利达（厦门）技术中心
Project
SMB-D7002
Document Number
8470Y
Size
C
Title
06 - Panel & Touch
Designer
Li Xuhui
Rev
1.0
Date:
Sunday, March 10, 2013
Sheet
06
of
13

USB OTG

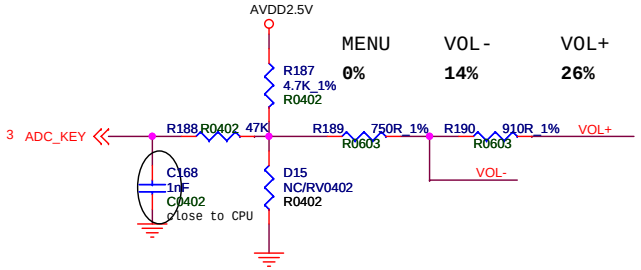


TF CARD



Check PCB footprint carefully

ADC KEY



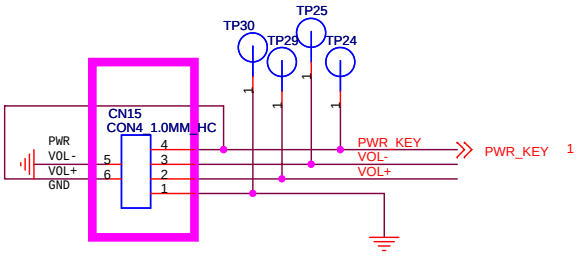
Button labeled corresponding function

Please follow below resistor value

when using less keys,
delete right side buttons.
Only the left key works when
pressing multiple keys imultaneously
key like "OK", and other
special keys should be placed to the right side

KEY	1	2	3	4	5	6	7	8
Value	0%	14%	26%	38%	50%	62%	75%	87%
Resister		750R 1%	910R 1%	1.2K 1%	1.8K 1%	3K 1%	6.2K 1%	18K 1%

Pull-up: 4.7K_1%, MAX 8 ADC KEYs

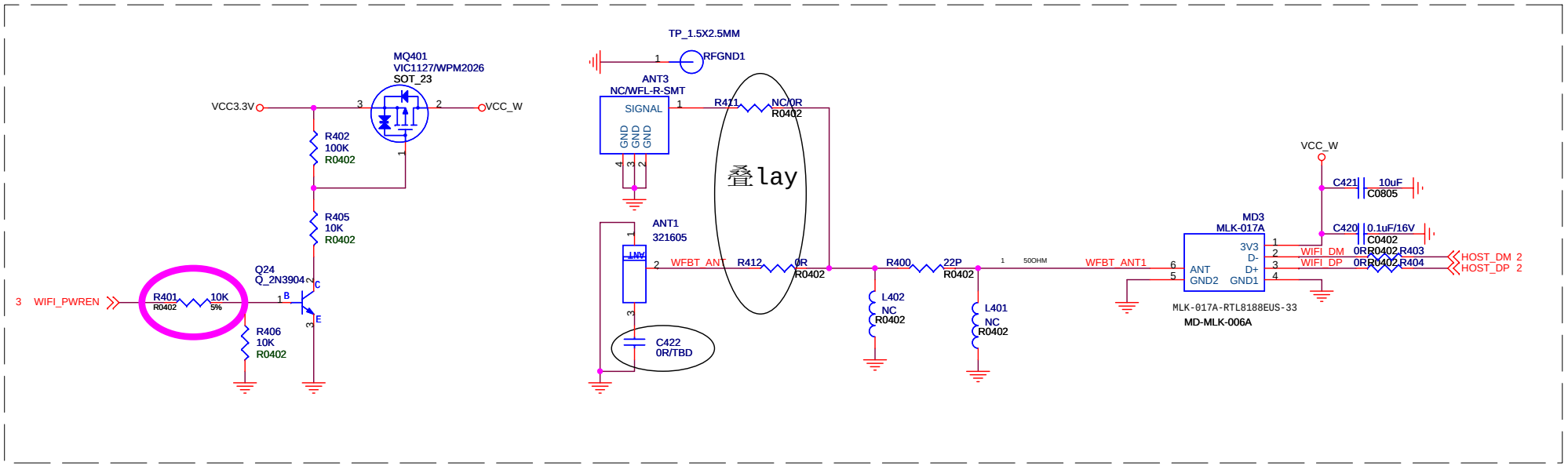


XH: V2.0 CN15由0.8间距更改为1.0间距！

万利达malata 万利达（厦门）技术中心

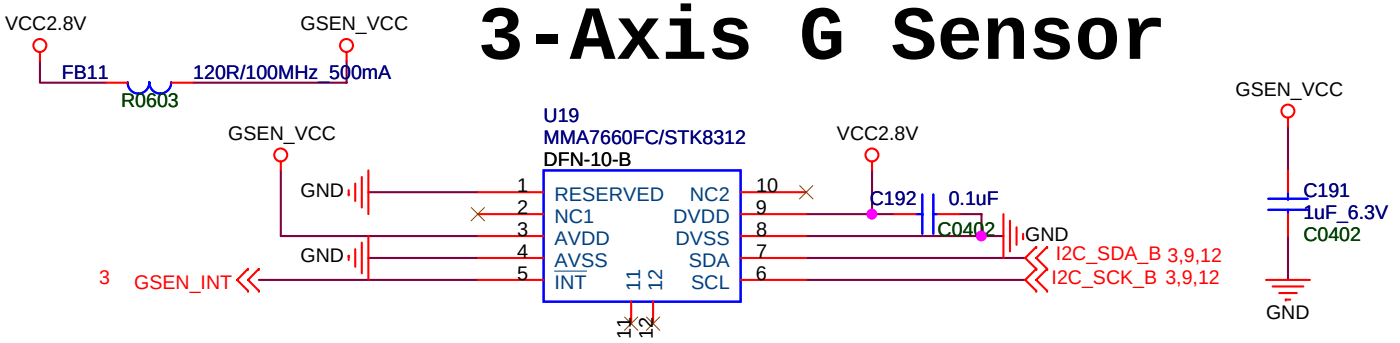
Project: SMB-D7002		Document Number: 8470Y	
Size: B	Title: 07 - KEY & USB & CARD	Designer: Li Xuhui	Rev: 1.0
Date: Wednesday, April 24, 2013		Sheet 07 of 13	

WIFI



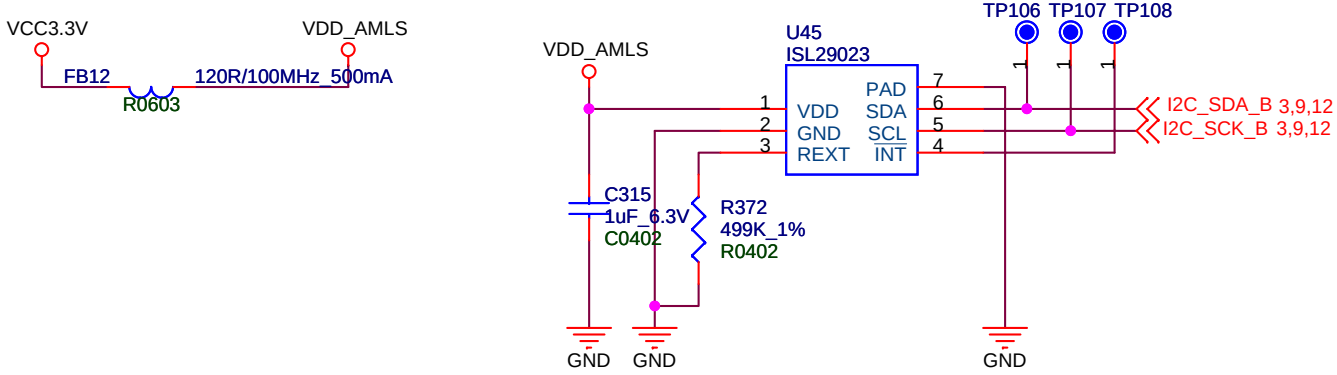
万利达malata 万利达（厦门）技术中心			
Project SMB-D7002		Document Number 8470Y	
Size B	Title 08 - WIFI	Designer Li Xuhui	Rev 1.0
Date: Sunday, March 10, 2013		Sheet 08 of 13	

3-Axis G Sensor



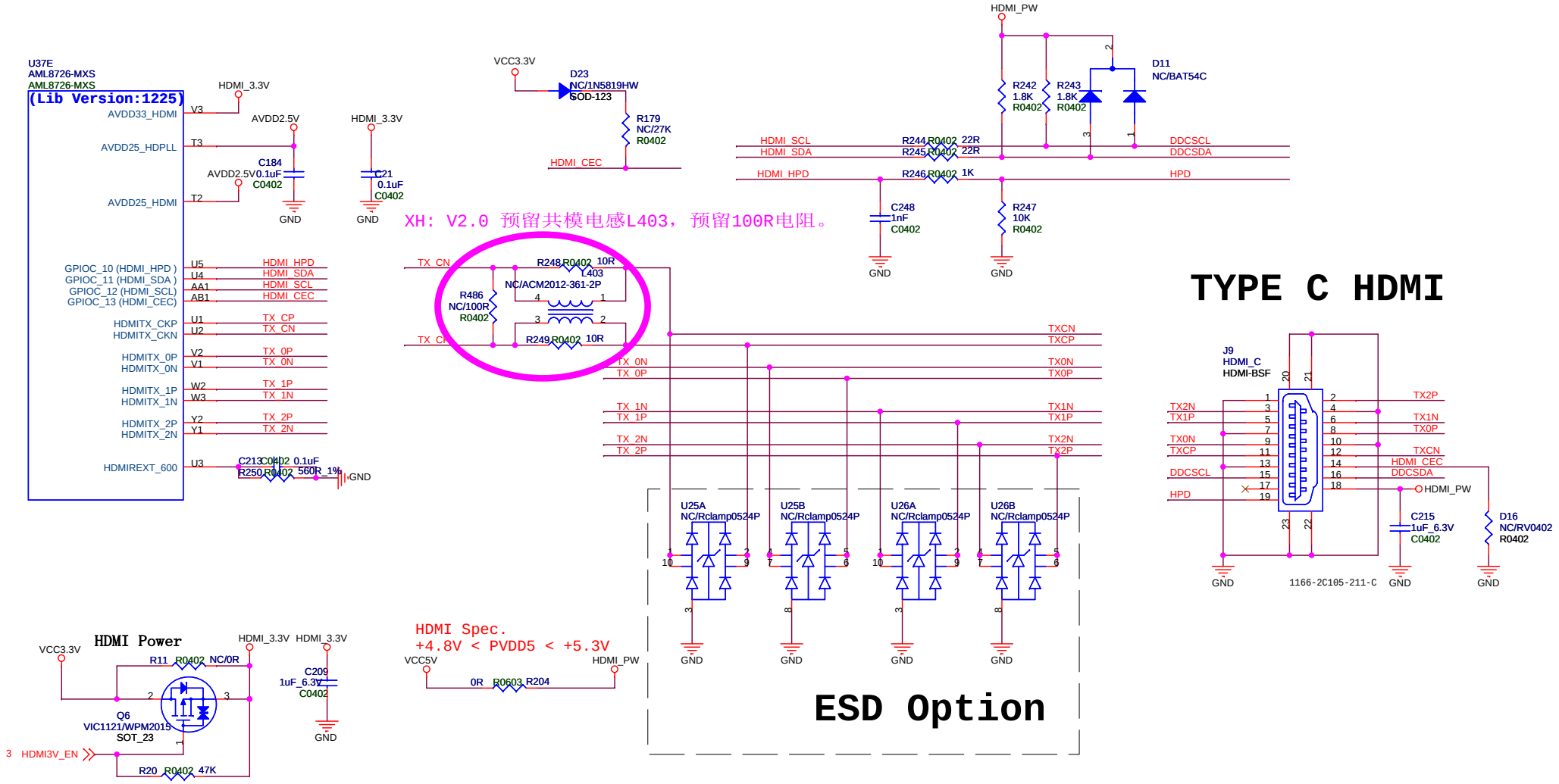
Notes: G-sensor must place to
the center of MID.

Light Sensor(Optional)



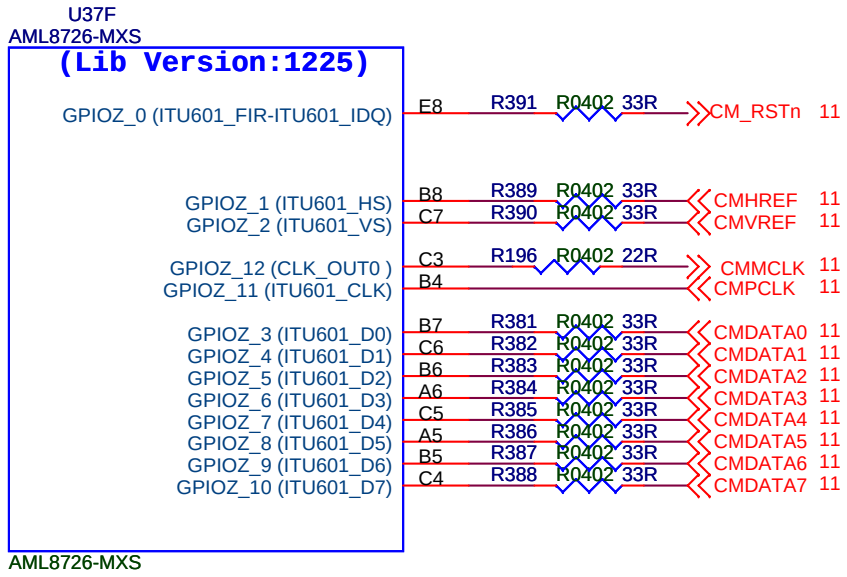
万利达malata 万利达（厦门）技术中心

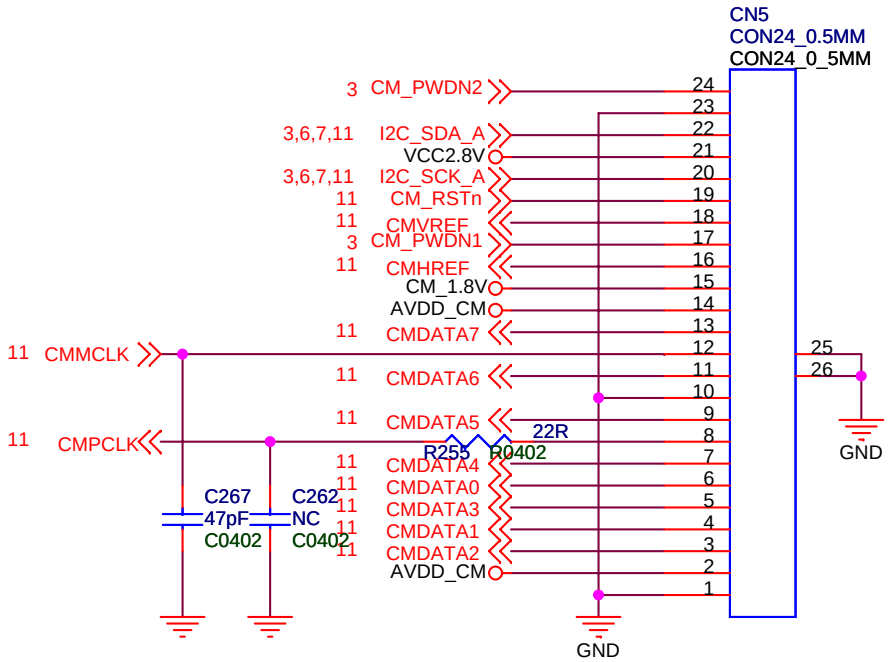
Project: SMB-D7002		Document Number: 8470Y	
Size: A	Title: 09 - SENSOR	Designer: Li Xuhui	Rev: 1.0
Date: Sunday, March 10, 2013		Sheet 09 of 13	

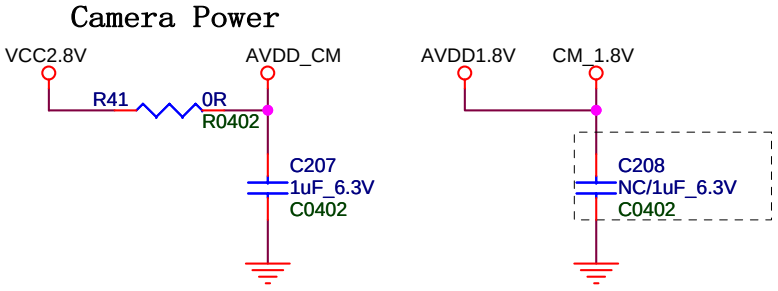


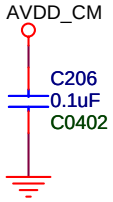
For HDMI Certification, welding Q6/R20, NC R11;
Without HDMI Certification, welding R11 only.

万利达malata 万利达（厦门）技术中心			
Project SMB-D7002		Document Number 8470Y	
Size B	Title 10 - HDMI	Designer Li Xuhui	Rev 1.0
Date: Sunday, March 10, 2013		Sheet 10 of 13	



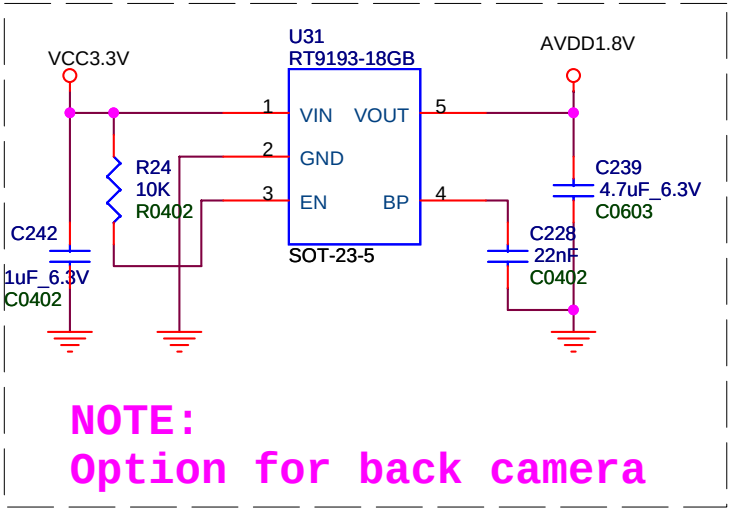






XH: 是否要贴？待定！

Note: The direction of the camera imaging and LCD screen must be horizontal direction, or 180 °, otherwise the software can not be adjusted.



NOTE:
Option for back camera

万利达malata 万利达（厦门）技术中心

Project: SMB-D7002		Document Number: 8470Y	
Size: A	Title: 11 - CAMERA	Designer: Li Xuhui	Rev: 1.0
Date: Sunday, March 10, 2013		Sheet 11 of 13	

Differential MIC layout notes:
Amplifier placed close to the MIC, MIC1N/MIC1P close alignment, differential line package AGND;

On board MIC

测试点焊盘1.5*2.5mm，两焊盘间距2mm

XH: V2.0 增加R483

XH: V2.0 增加R484,R485

XH: V2.0 增加D20!

Option

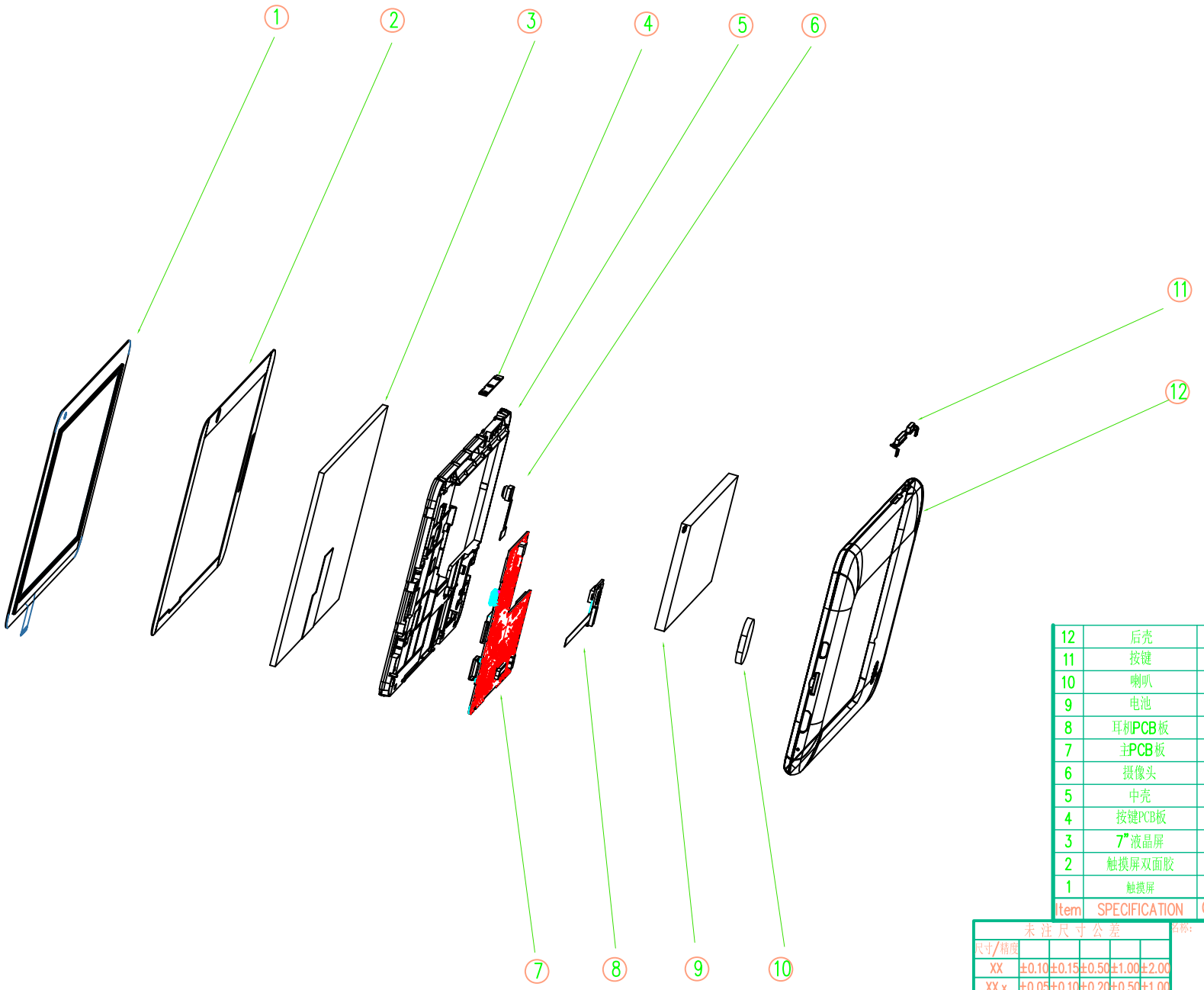
NOTE:
AGND trace resistor should < 0.01ohm about 2.5mm width for 50mm 1OZ trace

HEADPHONE

耳机板接口插座！

Please make sure that the physical package, left and right channels is correct.

万利达malata 万利达（厦门）技术中心			
Project: SMB-D7002		Document Number: 8470Y	
Size: B	Title: 12 - AUDIO	Designer: Li Xuhui	Rev: 1.0
Date: Tuesday, March 12, 2013		Sheet 12 of 13	



Item	SPECIFICATION	Qty	Parts No.	Material
12	后壳	1		CH6410
11	按键	1		ABS
10	喇叭	1		
9	电池	1		
8	耳机PCB板	1		
7	主PCB板	1		
6	摄像头	1		
5	中壳	1	SMB-D7002-RE02	CM6220
4	按键PCB板	1		9080
3	7"液晶屏	1		
2	触摸屏双面胶	1	SMB-D7002-H01	6050
1	触摸屏	1		

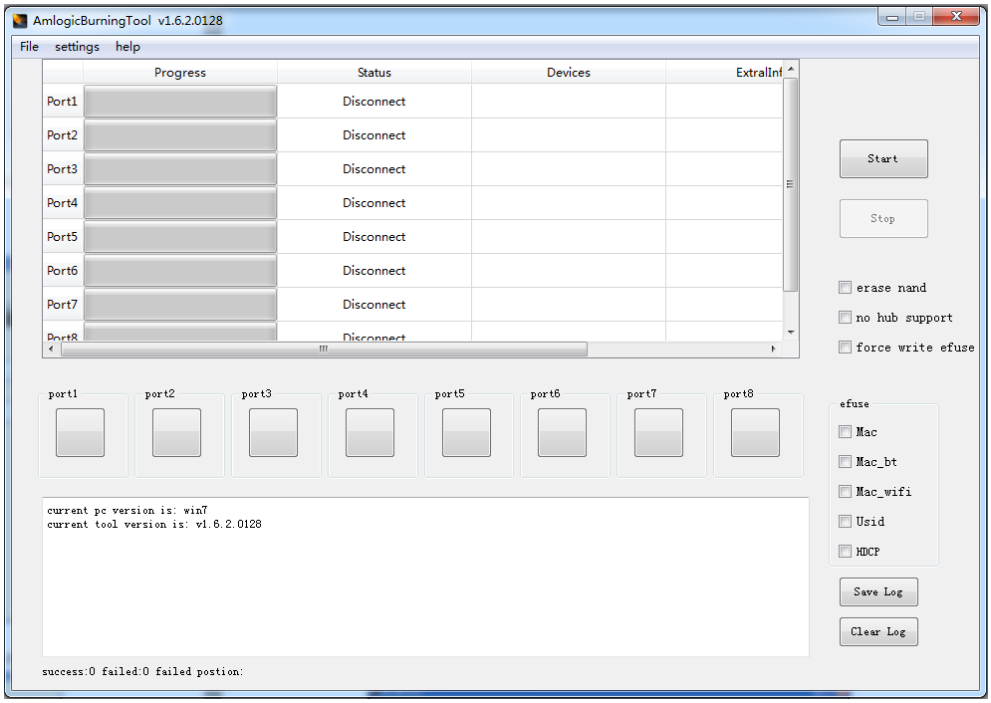
未注尺寸公差						名称:		型号	
尺寸/精度						SMB-D7002 爆炸图		图号	
XX	±0.10	±0.15	±0.50	±1.00	±2.00			零件号	
XX.x	±0.05	±0.10	±0.20	±0.50	±1.00			材料	
XX.xx	±0.02	±0.05	±0.10	±0.20	±0.50	设计		比例	
角度/精度						审核		数量	个/单机
XX	±1°					批准		共1张	第1张
XX.x	±0.5°					南靖万利达科技有限公司 WANLIDA GROUP CO., LTD			
XX.xx	±0.2°								

Upgrade with the Mass Production Tool

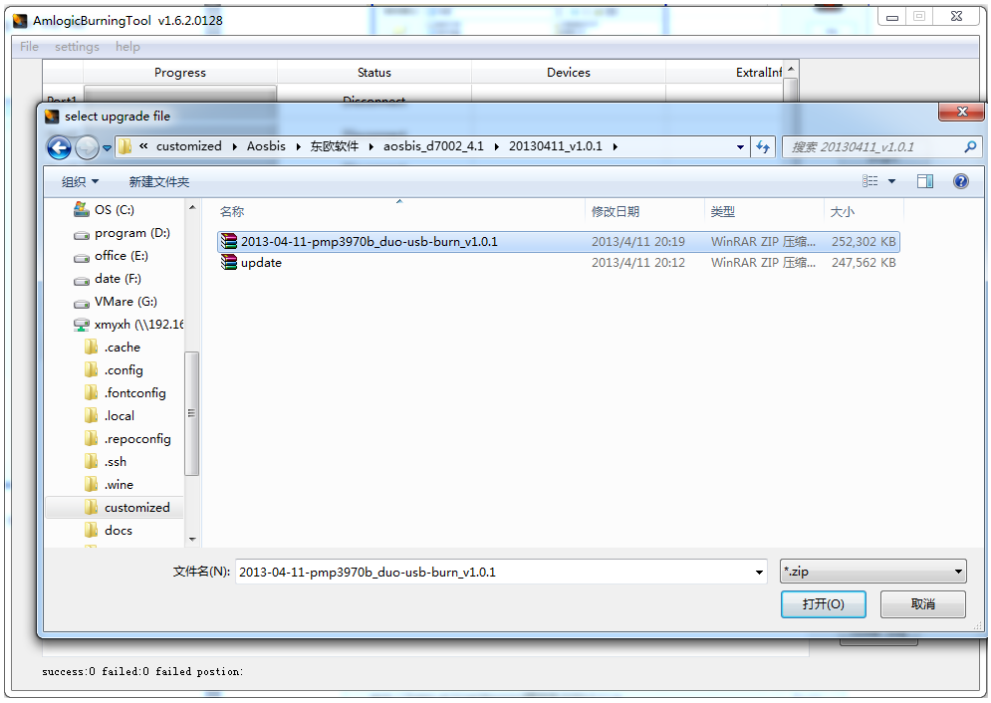
1. Running the drivers installer in the path of “USB-Burning-tool-v1.6.20\AmlogicusbBurningdriver\”.
2. Open the **Mass Production Tool** after installing its driver by clicking on the file

ImageBurnTool.exe

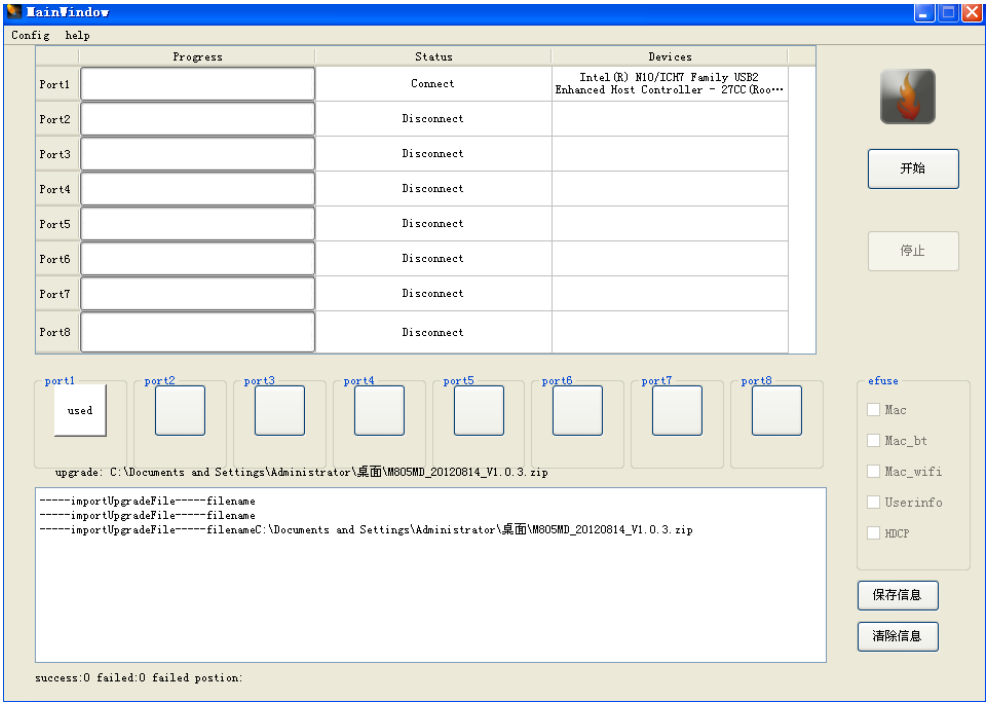
from the folder of **USB-Burning-tool**.



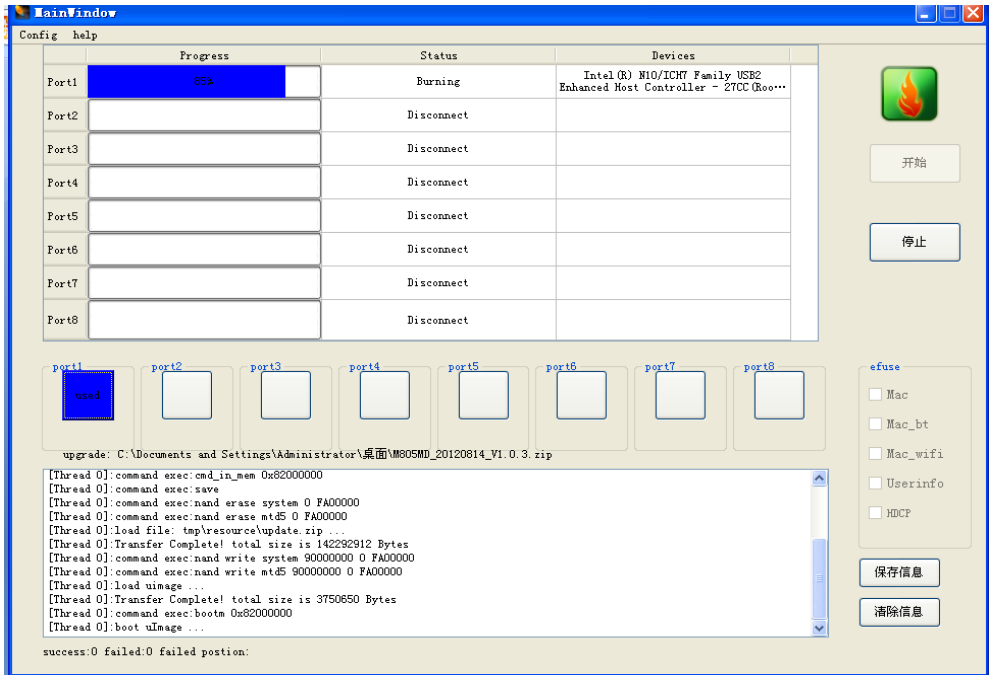
3. Select the item File on the top left of the screen and select “import the upgrade package”.The upgrade package is “2013-04-11-pmp3970b_duo-usb-burn_v1.0.1.zip”.



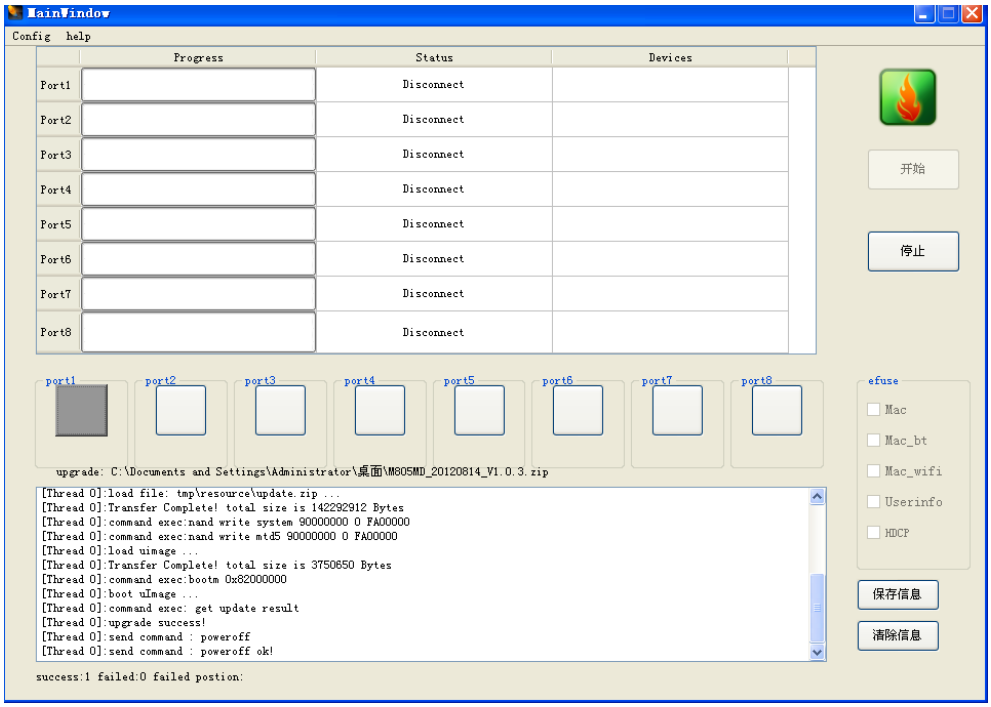
4. In power-off status (make sure the battery has enough capacity), connect the device to the PC through a USB cable, then press and hold the **VOL**+ button (for mono-core products) or **VOL+** and **Power** button together (for dual-core products). Once the Device data appear on the interface, you can click the Start button to start upgrading.（Here the Port x refers to the device connected to the corresponding physical Port. In the case that certain port data is empty, it means that there is no such correlated physical Port or no device connected to that Port.）



5. When the burning progress comes up to 88%, it will be need some minuters for program.Please wait.



6. The burning process completes,and the MID will reboot automatically.



Upgrade with SD Card

1. Unzip the file which named “pmp3970b_duo-ota_20130411_v1.0.1.rar “ to the SD card, It have three files as factory_update_param.aml, uImage_recovery and update.zip .
2. Put the SD card into the device,Then turn off the device (make sure the battery has sufficient capacity).
3. Press and hold down the combination buttons **VOL-** and **Power** button until the Home screen comes out.
4. Then the device will update automatically.